

## WHAT IS CLAIMED IS:

1. A device control apparatus, comprising a clock processing unit for generating a current time corrected according to an information of a time  
 5 received from a system controller via a network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, as a result of said comparison, operation of external device is controlled  
 10 when the preset designation time is reached.

2. A data transmission control apparatus, comprising a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a  
 15 transmitting/ receiving processing unit for transmitting and receiving data and control signal to and from said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, as a result of said  
 20 comparison, the sending of transmission data from external device is stopped by said transmitting/receiving processing unit when the preset designation time is detected.

Susant 3. A data transmission control apparatus, comprising a clock  
 25 processing unit for generating a current time corrected according to an

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network, a transmitting/ receiving processing unit for transmitting and receiving data including compressed image data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a  
 5 designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, compressed image data of I frame is sent out; and

an arbitrary number of data transmission control apparatuses each  
 10 having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said  
 15 system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, the received data is switched over;

said data transmission control apparatuses being connected with each  
 20 other over a network, whereby compressed image data received is switched over at a timing of transmission of an image data of I frame, which constitutes compressed image on the receiving side.

6. A data transmission control system, for use in a case wherein a  
 25 plurality of devices for transmitting and a plurality of devices for receiving

compressed image data are connected with each other over a network, said system being arranged such that when the compressed image data received on the receiving device is switched over, it is requested to send out I frame of compressed image data constituting the compressed image to the device for  
5 sending the compressed image data to be received newly, and compressed image data of I frame is transmitted within the shortest time to the receiving device.

7. (Deleted)

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8. (Deleted)

9. The data transmission control apparatus, comprising the device control apparatus according to claim 1, whereby said apparatus is connected  
15 between a device receiving data and a network, and the data to be relayed is switched over when a preset designation time is detected.

10. A transmission control method in data transmission of compressed image data, comprising the steps of setting a data amount of  
20 image data including I frame constituting the compressed image to a value lower than a transmissible data amount, and providing free time up to arrival of the next data group.

11. The device control apparatus according to claim 1, wherein  
25 information of the designation time is maintained in the device in advance.

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5 a plurality of monitoring means each utilizing a data transmission control apparatus, having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said

10 current time and these agree with each other, the received data is switched over; and

a manager connected to a network, to which said plurality of photographing/transmitting means and said plurality of monitoring means are connected, said manager performing scheduling of data transmission

15 between said plurality of photographing/transmitting means and said plurality of monitoring means.

16. (Newly added) A data transmission control system, comprising:

a plurality of photographing means each utilizing a data transmission

20 control apparatus, having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/ receiving processing unit for transmitting and receiving data including compressed image data and control signal with respect to said network, a time designation processing unit for

25 setting a designation time received from said system controller via said

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network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, compressed image data of I frame is sent out;

- 5 a plurality of monitoring means each utilizing a data transmission control system having an arbitrary number of data transmission control apparatuses each having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/ receiving processing unit for transmitting and
- 10 receiving data including compressed image data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time
- 15 is compared with said current time and these agree with each other, compressed image data of I frame is sent out; and an arbitrary number of data transmission control apparatuses each having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving
- 20 processing unit for transmitting and receiving data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time
- 25 is compared with said current time and these agree with each other, the

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received data is switched over; said data transmission control apparatuses being connected with each other over a network, whereby compressed image data received is switched over at a timing of transmission of an image data of I frame, which constitutes compressed image on the receiving side; and

A<sup>3</sup> a manager connected to a network, to which said plurality of photographing/transmitting means and said plurality of monitoring means are connected, said manager performing scheduling of data transmission between said plurality of photographing/transmitting means and said plurality of monitoring means.

17. (Newly added) A data transmission control system, comprising:  
a plurality of photographing means each utilizing a data transmission control apparatus, having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data including compressed image data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, compressed image data of I frame is sent out;

a plurality of monitoring means each utilizing a data transmission control apparatus, having a clock processing unit for generating a current



time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, the received data is switched over; and

a manager connected to a network, to which said plurality of photographing/transmitting means and said plurality of monitoring means are connected, said manager performing scheduling of data transmission between said plurality of photographing/transmitting means and said plurality of monitoring means.

18. (Newly added) A data transmission control system, comprising:  
a plurality of photographing means each utilizing a data transmission control apparatus, having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/ receiving processing unit for transmitting and receiving data including compressed image data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said

designation time is compared with said current time and these agree with each other, compressed image data of I frame is sent out;

a plurality of monitoring means each utilizing a data transmission control system having an arbitrary number of data transmission control apparatuses

5 each having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/ receiving processing unit for transmitting and receiving data including compressed image data and control signal with respect to said network, a time designation processing unit for setting a

10 designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, compressed image data of I frame is sent out; and an arbitrary number of

15 data transmission control apparatuses each having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data and control signal with respect to said network, a time designation processing unit for setting a

20 designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, the received data is switched over; said data transmission control apparatuses

25 being connected with each other over a network, whereby compressed

image data received is switched over at a timing of transmission of an image data of I frame, which constitutes compressed image on the receiving side; and

A> a manager connected to a network, to which said plurality of  
5 photographing/transmitting means and said plurality of monitoring means are connected, said manager performing scheduling of data transmission between said plurality of photographing/transmitting means and said plurality of monitoring means.

10 19. (Newly added) A data transmission control system, comprising:  
a plurality of photographing means each utilizing a data transmission control apparatus, for use in a case wherein a plurality of devices for transmitting and a plurality of devices for receiving compressed image data are connected with each other over a network, said system being arranged  
15 such that when the compressed image data received on the receiving device is switched over, it is requested to send out I frame of compressed image data constituting the compressed image to the device for sending the compressed image data to be received newly, and compressed image data of I frame is transmitted within the shortest time to the receiving device;

20 a plurality of monitoring means each utilizing a data transmission control apparatus, having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data and control signal with respect to said  
25 network, a time designation processing unit for setting a designation time

received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, the received data is switched  
 5 over; and

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 a manager connected to a network, to which said plurality of photographing/transmitting means and said plurality of monitoring means are connected, said manager performing scheduling of data transmission between said plurality of photographing/transmitting means and said plurality  
 10 of monitoring means.

20. (Newly added) A data transmission control system, comprising:  
 a plurality of photographing means each utilizing a data transmission control apparatus, for use in a case wherein a plurality of devices for  
 15 transmitting and a plurality of devices for receiving compressed image data are connected with each other over a network, said system being arranged such that when the compressed image data received on the receiving device is switched over, it is requested to send out I frame of compressed image data constituting the compressed image to the device for sending the  
 20 compressed image data to be received newly, and compressed image data of I frame is transmitted within the shortest time to the receiving device;

a plurality of monitoring means each utilizing a data transmission control system having an arbitrary number of data transmission control apparatuses each having a clock processing unit for generating a current time corrected  
 25 according to an information of a time received from a system controller via a

network, a transmitting/ receiving processing unit for transmitting and  
 receiving data including compressed image data and control signal with  
 respect to said network, a time designation processing unit for setting a  
 designation time received from said system controller via said network, and a  
 5 designation time detection processing unit for comparing said preset  
 designation time with said current time, whereby, when said designation time  
 is compared with said current time and these agree with each other,  
 compressed image data of I frame is sent out; and an arbitrary number of  
 data transmission control apparatuses each having a clock processing unit  
 10 for generating a current time corrected according to an information of a time  
 received from a system controller via a network, a transmitting/receiving  
 processing unit for transmitting and receiving data and control signal with  
 respect to said network, a time designation processing unit for setting a  
 designation time received from said system controller via said network, and a  
 15 designation time detection processing unit for comparing said preset  
 designation time with said current time, whereby, when said designation time  
 is compared with said current time and these agree with each other, the  
 received data is switched over; said data transmission control apparatuses  
 being connected with each other over a network, whereby compressed  
 20 image data received is switched over at a timing of transmission of an image  
 data of I frame, which constitutes compressed image on the receiving side;  
 and  
 a manager connected to a network, to which said plurality of  
 photographing/transmitting means and said plurality of monitoring means are  
 25 connected, said manager performing scheduling of data transmission

between said plurality of photographing/transmitting means and said plurality of monitoring means.

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5 21. (Newly added) The data transmission control system according to claim 15, wherein, in the scheduling by said manager, the sending of I frame of compressed image data is thinned out.

10 22. (Newly added) The data transmission control system according to claim 16, wherein, in the scheduling by said manager, the sending of I frame of compressed image data is thinned out.

15 23. (Newly added) The data transmission control system according to claim 17, wherein, in the scheduling by said manager, the sending of I frame of compressed image data is thinned out.

24. (Newly added) The data transmission control system according to claim 18, wherein, in the scheduling by said manager, the sending of I frame of compressed image data is thinned out.

20 25. (Newly added) The data transmission control system according to claim 19, wherein, in the scheduling by said manager, the ... sending of I frame of compressed image data is thinned out.

25 26. (Newly added) The data transmission control system according to claim 20, wherein, in the scheduling by said manager, the

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